CLAIMS

1.   A computer network comprising:

a multiport network device to receive data packets to be transmitted using the computer network, the network device storing one or more authorized network descriptors; and

a computer executing a software application, the software application generating data packets to be transmitted to the computer network through the network device, the software application registering a network rights descriptor with the network device, the software application inserting the network rights descriptor in each generated data packet;

wherein the network device is configured to discard the data packet if the network rights descriptor in the data packet does not match an authorized network rights descriptor, and to process the data packet if the network rights descriptor in the data packet matches an authorized network rights descriptor.

2.   The computer network of claim 1, wherein:

the one or more authorized network descriptors are stored persistently in the network device.

3.   The computer network of claim 1, wherein:

the one or more authorized network descriptors are stored in a device connected to the computer network, and the network device is configured to retrieve the authorized network descriptors from the device.

4.   The computer network of claim 1, wherein:

the network device is configured to retrieve the authorized network descriptors from an authentication server.

5. The computer network of claim 1, wherein:

the network device stores one or more user defined packet policies, and is configured to perform an action from a user defined packet policy that matches the network rights descriptor.

6. The computer network of claim 1, wherein:

the network device is configured to route the data packet using a layer 2-3 switch.

7. The computer network of claim 1, wherein:

the network rights descriptor comprises an application rights descriptor, a content rights descriptor, and an enterprise rights descriptor.

8. The computer network of claim 1, wherein:

the network rights descriptor is encrypted.

9. The computer network of claim 1, wherein:

the network device is configured to process the data packet at wire-speed.

10. The computer network of claim 1, wherein:

the network device is configured to block discarded data packets from utilizing the computer network, redirect discarded data packets, and log discarded data packets.

11.   A computer network comprising:

a first multiport network device to receive data packets to be transmitted using the computer network, the first network device inserting a local network descriptor in each data packet transmitted by the first network device;

a second network device to receive data packets from the computer network, the second network device storing one or more authorized local network descriptors;

wherein the second network device is configured to discard the data packet if the local network descriptor in the data packet does not match an authorized local network descriptor, and to process the data packet if the local network descriptor in the data packet matches an authorized local network descriptor.

12.   The computer network of claim 11, wherein:

the one or more authorized network descriptors are stored persistently in the second network device.

13.   The computer network of claim 11, wherein:

the one or more authorized network descriptors are stored in a device connected to the computer network, and the second network device is configured to retrieve the authorized network descriptors from the device.

14.   The computer network of claim 11, wherein:

the second network device is configured to retrieve the authorized network descriptors from an authentication server.

15.   The computer network of claim 11, wherein the second network device stores one or more user defined packet policies, and is configured to perform an action from a user defined packet policy that matches the network rights descriptor.

16.   The computer network of claim 11, wherein:

the second network device is configured to route the data packet using a layer 2-3 switch.

17. The computer network of claim 11, wherein:

the network rights descriptor is encrypted.

18. The computer network of claim 11, wherein:

the first network device is configured to process the data packet at wire-speed.

5 19. The computer network of claim 11, wherein:

the second network device is configured to process the data packet at wire-speed.

20. The computer network of claim 11, wherein:

the second network device is configured to block discarded data packets from

utilizing the computer network, redirect discarded data packets, and log discarded data

10 packets.

21. The computer network of claim 11, wherein the second network device is configured

to strip the local network descriptor before processing the data packet, if the data packet has a

destination external to the computer network.

22.   A method for processing data packets in a computer network, comprising:

storing one or more authorized network descriptors at a multiport network device;

generating data packets at a software application, the data packets to be transmitted to the computer network through the network device;

5   inserting a network rights descriptor in each generated data packet with the software application;

receiving input at the network device identifying the network rights descriptor as an authorized network rights descriptor;

receiving a data packet at the network device, the data packet including information

10   from one or more of Layers 2 through 7 of the OSI model;

if the network rights descriptor in the data packet matches an authorized network rights descriptor, processing the data packet at the network device; and

if the network rights descriptor in the data packet does not match an authorized network rights descriptor, discarding the data packet.

15